

GLOBAL DIGITAL UNIVERSITY PRESENTS:

Web Accessibility

JULY 2020

Agenda

- 1 Introduction
- 2 Why care about accessibility?
- 3 Accessibility fundamentals
- 4 What can you do to meet web accessibility?
- 5 What's next





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UX**



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DIGITAL DESIGNER



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**SENIOR DIGITAL CONTENT
AND EDITORIAL MANAGER**



Lindsay Mineo

SEO SPECIALIST

What is web accessibility?

Accessibility means the ability of everyone regardless of their condition to **have access to something.**

What is web accessibility?

What is web accessibility?

Web accessibility is about making your websites **usable by as many people as possible.**

1 in 5 individuals in this country have a form of disability, meaning 20% of people need web accessible measures in order to help navigate across websites.



3.8 million

As of 2016, an estimated 3.8 million people aged 21 to 64 years were blind or had serious difficulty seeing, even when wearing glasses.



15%

Approximately 15% of American adults (37.5 million) aged 18 and over report some trouble hearing.



2x NYC population

The number of people living with cognitive disabilities in the United States is equal to twice the population of New York City.

01

Our Values

Among our TNC values is a **Commitment to Diversity** and a **Respect for People, Communities and Cultures**.

Accessibility ensures a level playing field for all of our digital audiences.

02

Legal Protection

Companies can face legal ramifications and penalty fees if content on their website isn't accessible or usable.

03

Better Business

Having a usable website with accessible content can increase the **conversion** of potential users and customers (donors), improve **SEO**, enhance your **brand**, and open doors to **partnerships**.

Web accessibility also benefits people *without* disabilities

- older people with changing abilities due to aging (35% of TNC's support.nature.org form visitors are over 65)
- people using mobile devices with small screens, different input modes, etc.
- people with “temporary disabilities” such as a broken arm or lost glasses
- people with “situational limitations” such as in bright sunlight or in a place where they cannot listen to audio
- people using a slow Internet connection



Web Accessibility Fundamentals

There are **four fundamental principles** of web accessibility

There are **four fundamental principles** of web accessibility



PERCEIVABLE

Information must be
presentable to users in ways
they can perceive

For example, providing text for
those who cannot hear, and audio
for those who cannot see

There are **four fundamental principles** of web accessibility



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OPERABLE

User can interact with your content using various tools

For example, keyboard tabbing, mouse, sip-and-puff, speech input, touch, etc.

There are **four fundamental principles** of web accessibility



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UNDERSTANDABLE

Information and functionality are easy to understand

For example, clear navigation, simple language

There are **four fundamental principles** of web accessibility



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UNDERSTANDABLE

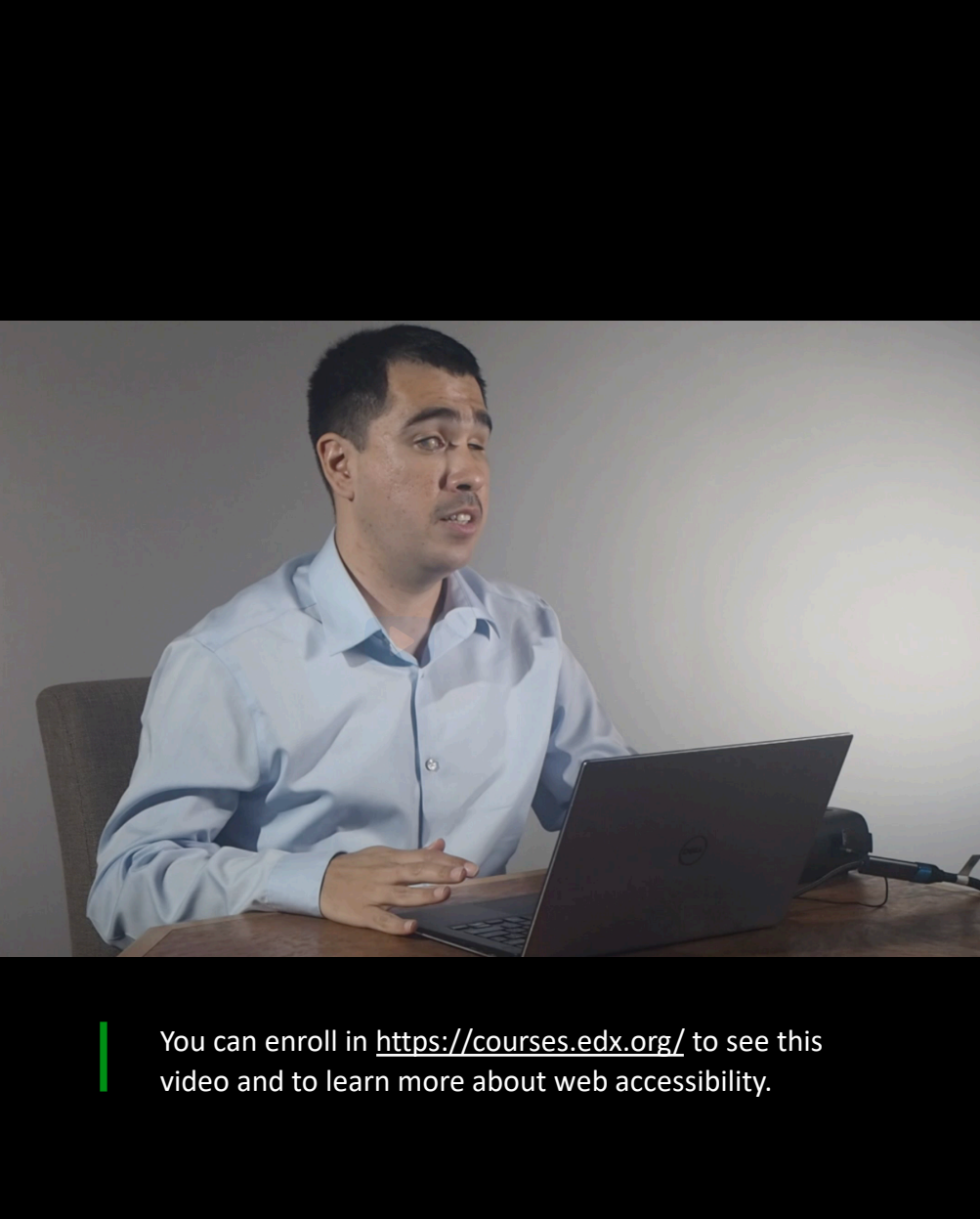
Information and functionality are easy to understand

For example, clear navigation, simple language



ROBUST

Content is compatible across a wide variety of browsers, devices, and assistive technologies.



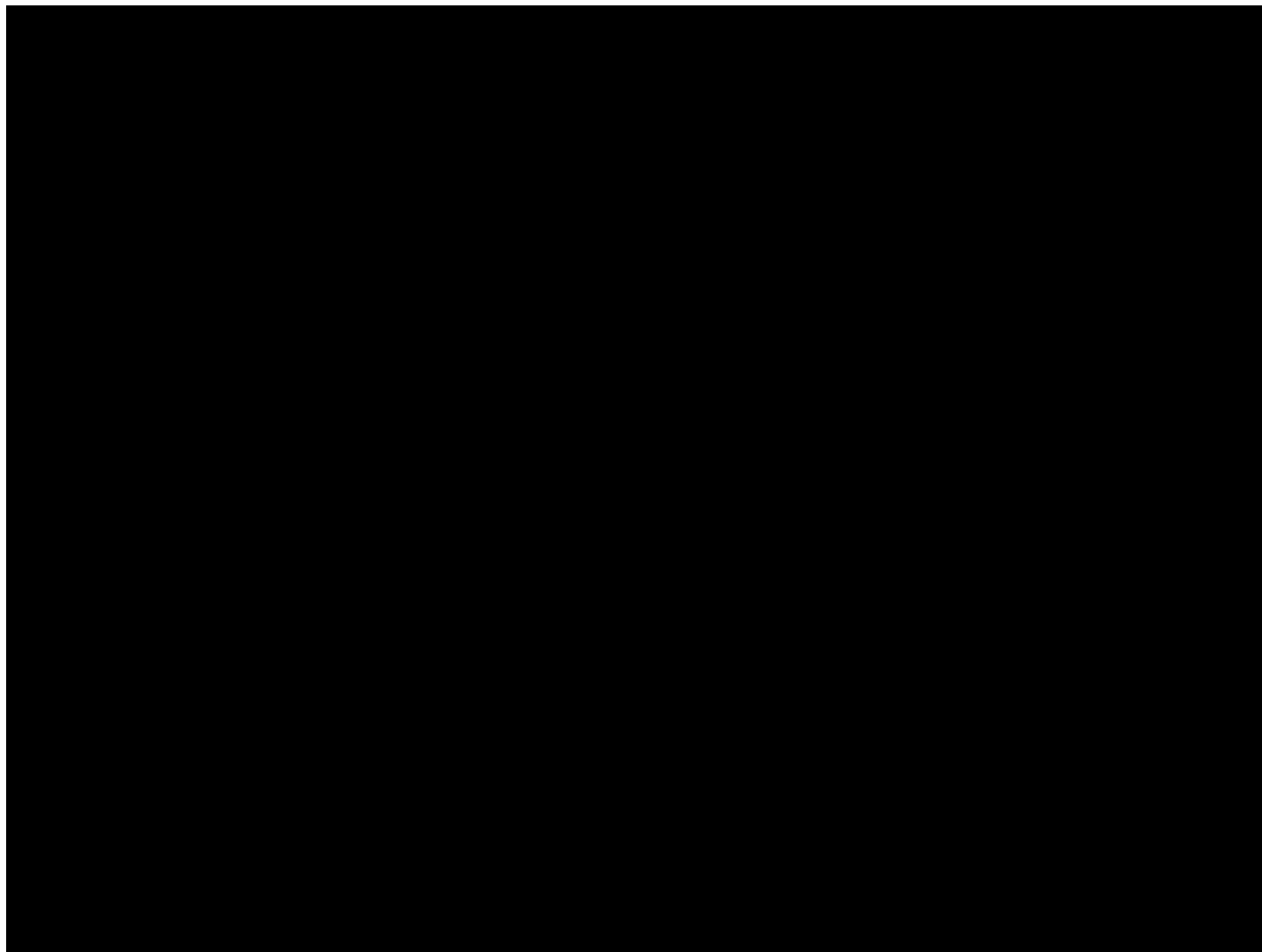
Anthony is blind.

He uses a text-to-speech screen reader to tab through websites and hear a description of each element.

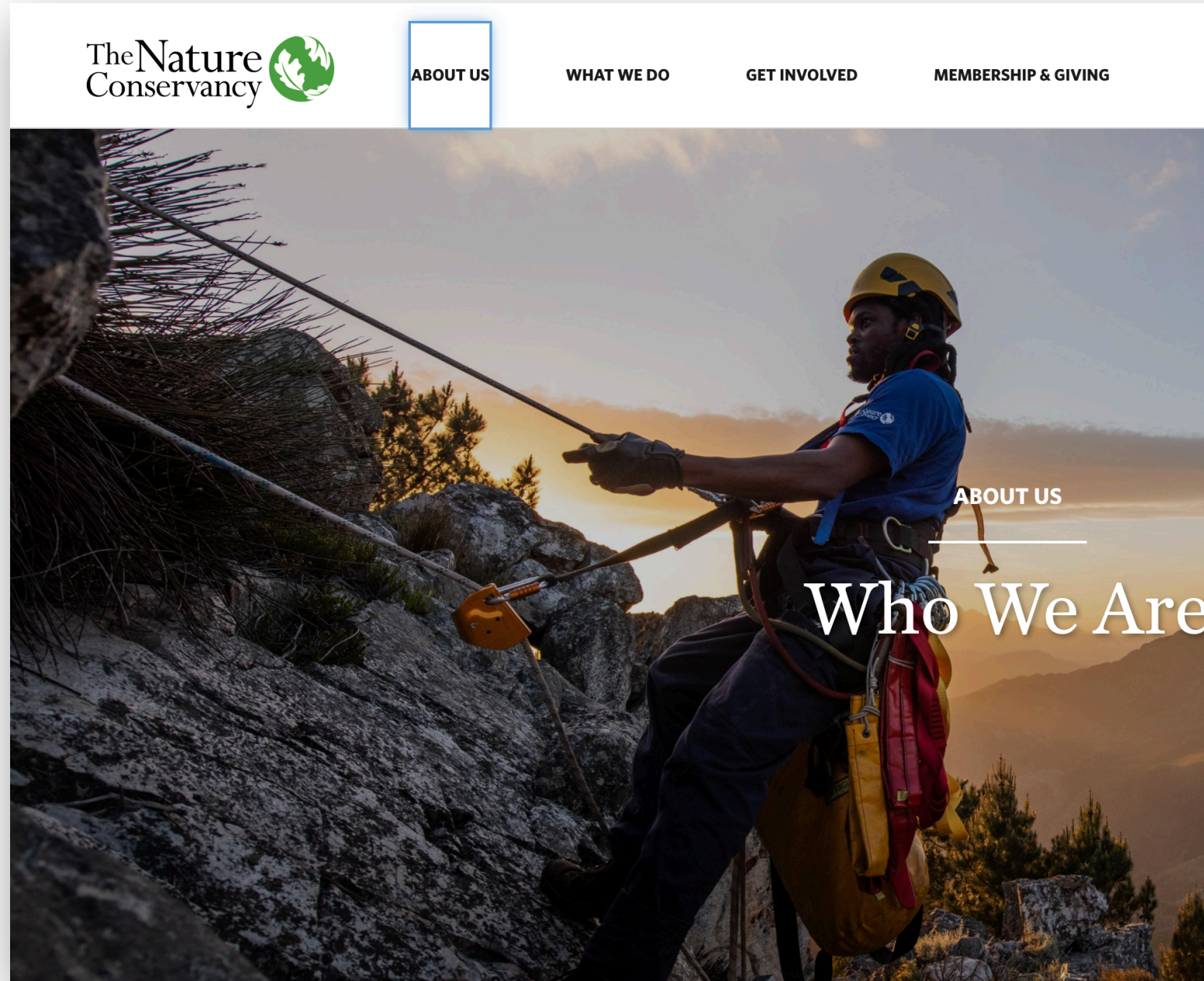
You can enroll in <https://courses.edx.org/> to see this video and to learn more about web accessibility.

Screen Reader Demo

Close your eyes and listen to Nature.org's homepage being read out loud by a screen reader.



When Anthony tabs through nature.org, he relies on content being structured and described in a sensical way.





Lee is colorblind.

He has trouble perceiving certain colors, such as red, greens, browns and oranges.

Full Spectrum Vision



Anomalous Trichromatic Vision



Lee needs additional visual indicators other than color to convey important information such as links and forms.

If you ask to correct errors on a form marked in **Red**, a person who is color blind would not be able to distinguish where the errors are.

Use additional cues such as asterisks or underlining the call out text.

How this would appear to someone who is colorblind.

Please correct the errors in **red**.

Name

Lenny

Email

lenny@gmail.con

Phone

(909) 333-1023

Zip Code

2229



Dear Loyal Conservancy Supporter,

We are right in the apex of spring, which for many creatures means flocking from one seasonal home to another — **including pronghorn**.

For example, at this very moment, **pronghorn are migrating west** from their wintering range into the verdant valleys at the foot of the Pioneer Mountains. This migration stretches more than 80 miles each way, which scientists have tracked using GPS collars.

The insights illuminated by this tracking study provided crucial data points from which TNC Idaho created a decades-long vision to protect more than 100,000 acres between Craters of the Moon National Monument and the Pioneer Mountains. That vision included the protection of the 8,891-acre Cenarrusa Ranch.

We invite you to **learn more about the pronghorn's springtime journey** and how conservation in Idaho ensures that journey can continue as it has for generations.

We hope you are well and can rejoice in this happy news.

Yours in conservation,



Mark Menlove
Idaho State Director
The Nature Conservancy

PHOTO: Pronghorn crossing road © USFWS- Mountain Prairie

Full color email
with orange links



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Idaho State Director
The Nature Conservancy

PHOTO: Pronghorn crossing road © USFWS- Mountain Prairie

How this email
would appear to
someone who is
colorblind.

Can you distinguish
the embedded links
from the body text?



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PHOTO: Pronghorn crossing road © USFWS- Mountain Prairie

Including
additional visual
cues such as
underlines would
make links more
clear.

Improving Links on Nature.org

It is harder to distinguish links that are embedded in body copy. To ensure legibility for the visually impaired, there must be proper contrast between a link, the background it sits on, and the surrounding text. To achieve this, we darkened and underlined links in the Rich Text Editor and darkened the paragraph text to further increase the contrast between the green links and the surrounding text.

CURRENT STYLING

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo [read more here](#). Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

NEW STYLING

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo [read more here](#). Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Improving Button Styles on Nature.org

To improve legibility for the visually impaired, we updated button styles to ensure proper contrast between:

- The color of the text and button background
- The color of the button and surrounding page
- The color of the default button and the button's hover state

Before

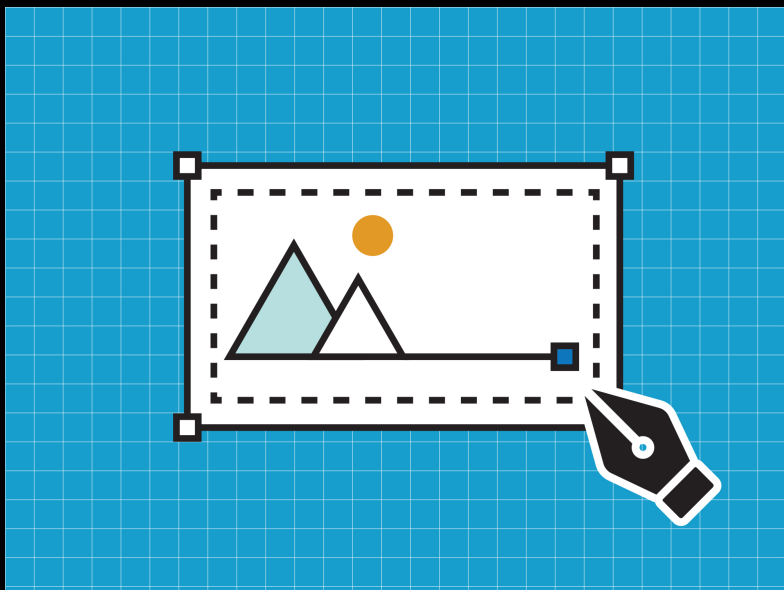


After



What you can do to meet accessibility

as publishers, content creators, designers, video producers, web developers



**DESIGNERS
CONTENT CREATORS**

If you are creating or using graphics, images, photos, and non-text assets...

1. Provide alternative text for all non text content

- Those who are blind, visually impaired, or have a learning disability rely on screen readers to render text and images as speech or braille output.

2. Use sufficient color contrast for graphics

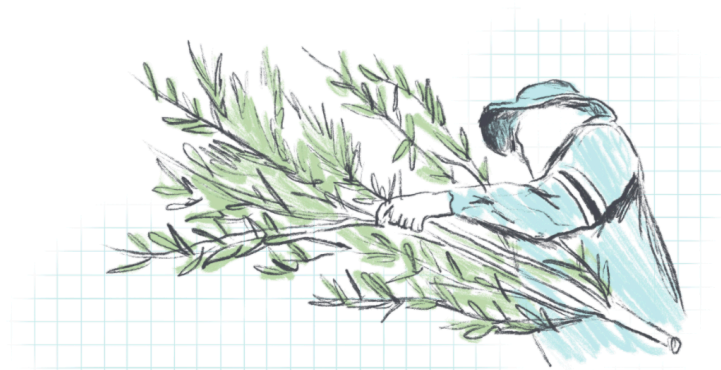
- For example, a yellow icon on a white background would not meet the minimum color contrast requirement. To check color contrast, use the [WebAIM contrast checker](#).

3. Avoid formatting text into images

- Try to format text using using a rich text editor and avoid drafting paragraphs and headers in images.

Reiterating the copy in the graphic

This example shows text in the graphic being reiterated in a rich text editor which enables the text to be translated up by assistive technology



"CLEARING INVASIVE PLANTS
TO AVOID WATER LOSSES AND PROTECT
BIODIVERSITY IN GREATER CAPE TOWN'S
WATERSHEDS HAD TO STOP... WE ARE
NOW LOSING THE VERY MOMENTUM WE GAINED."

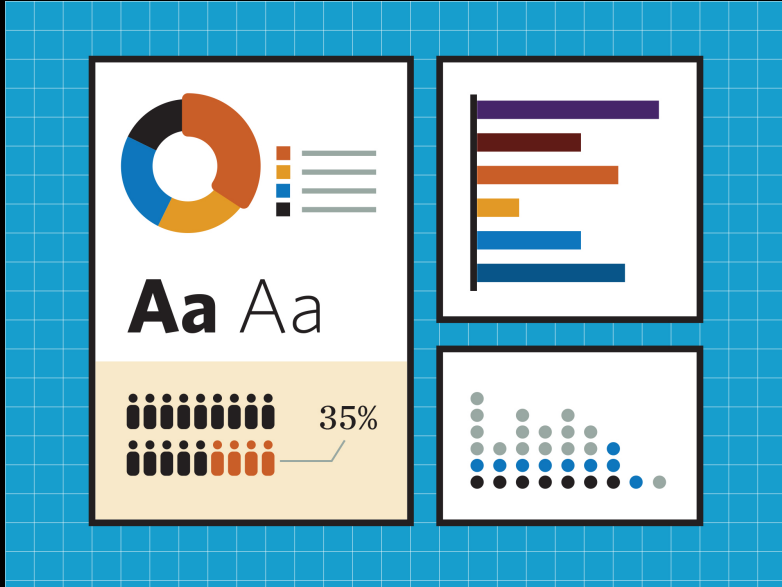
LOUISE STAFFORD

"Clearing invasive plants to avoid water losses and protect biodiversity in Greater Cape Town's watersheds had to stop. We were implementing at full capacity and are now losing the very momentum we gained. 120 people who had access to job opportunities through the [Greater Cape Town Water Fund](#) were sent home—they are now without an income."

- LOUISE STAFFORD, SOUTH AFRICA WATER FUNDS DIRECTOR; CAPE TOWN, SOUTH AFRICA

Clear alt text

alt="a sketchy illustration of a person carrying tree branches, with a handwritten quote underneath that says 'clearing invasive plants to avoid water losses and protect biodiversity in greater Cape Town's watersheds had to stop...we are now losing the very momentum we gained.'"



DESIGNERS
WEB DEVELOPERS
CARTOGRAPHERS

If you are creating infographics, maps or any data visualization content that uses text...

1. Make sure color is not the only variable used to convey information

- If you're designing an infographic or map that uses a legend, avoid using color as instructions ('See green area') and instead provide another non-color visual treatment to distinguish information, such as patterns, symbols, icons or text
- If you're building an interactive graph (e.g. pie, bar or line chart) that uses color to distinguish the segments, include mouse hover or clickable tooltips for the segmented elements and ensure there is enough color contrast between the segments.

2. Make sure font sizes and styles are legible

- It is generally agreed upon that 16px for body text is a good starting point.
- Avoid using font styles that are too light in weight. For example do not use 'Whitney Light' for body copy or small text.

NATURE-BASED SOLUTIONS FOR SECURING CAPE TOWN'S WATER SUPPLY



Invasive species of plants are "stealing" badly needed water supply.

The Invaders are "thirstier" than indigenous trees and take water that could run into rivers and reservoirs.

They also crowd out native Fynbos species that are rare and endemic to the area.

INVASIVE PLANTS "STEAL"
55 BILLION
LITERS OF WATER
EVERY YEAR

EQUIVALENT TO
ONE-SIXTH
OF THE CITY'S CURRENT SUPPLY NEEDS

CAPE TOWN
SOUTH AFRICA

IN THE FIRST SIX YEARS, CLEARING INVASIVE TREES WOULD...

GENERATE WATER GAINS OF
55 BILLION
LITERS
PER YEAR

CREATE
350 JOBS

PROTECT
NATIVE PLANTS

COST PER 1000 LITERS SAVED COMPARED TO OTHER INTERVENTIONS...

CLEARING
INVASIVE TREES
US\$0.08
55.6 BILLION
LITERS SAVED

DESALINATION
US\$1.02
55 BILLION
LITERS SAVED

WASTE WATER
RE-USE
US\$0.76
39.2 BILLION
LITERS SAVED

GROUNDWATER
SUPPLIES
US\$0.47
36.5 BILLION
LITERS SAVED

Text is very small and illegible

Content could be broken up into a longer vertical infographic for better hierarchy and simplifying the composition.

Font-weight is too light and colors do not meet sufficient color contrast

Using RTE for paragraph text

Breaking up the graphic into a vertical orientation

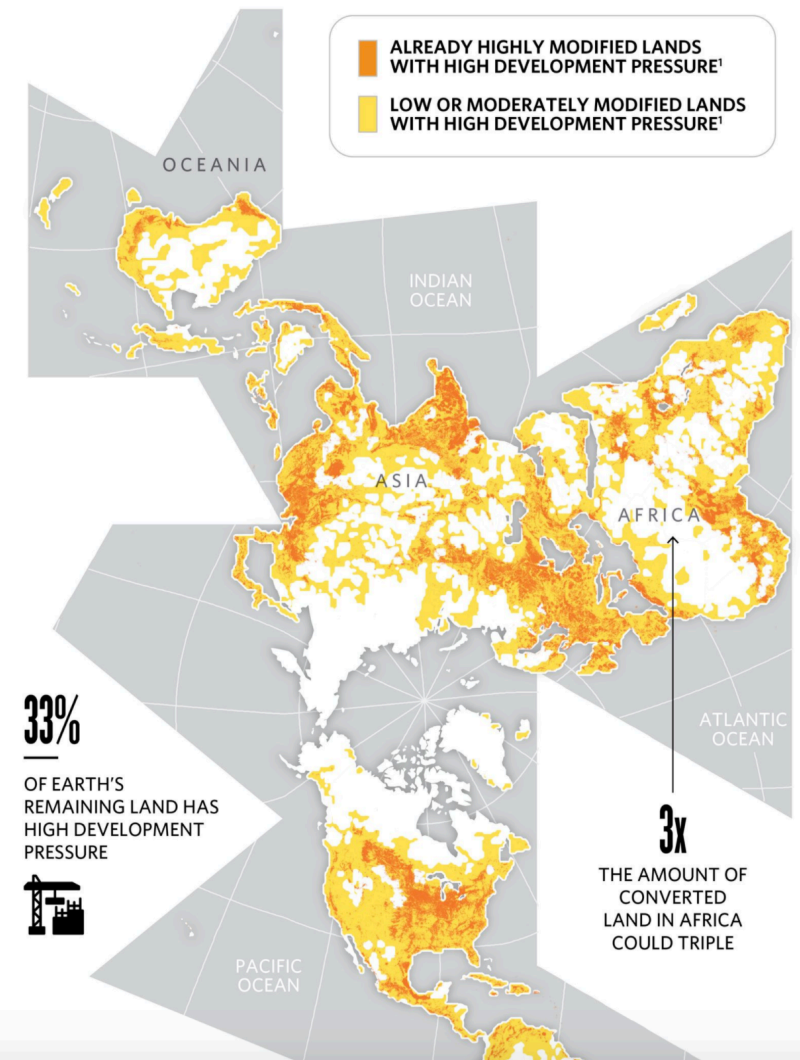
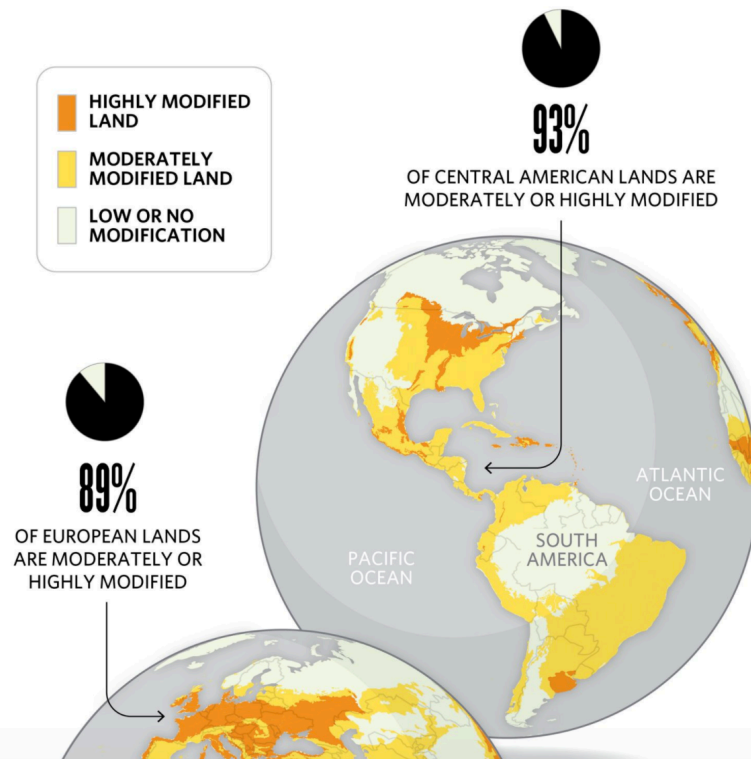
Ensuring sufficient color contrast from the legend

Ensuring text in graphic is large enough for legibility

I. Our Impact on Nature: What on Earth is Left?

Humans have transformed the Earth. We've impacted the land surface with multiple forms of development, including urbanization, agriculture, energy, mining and infrastructure expansion. These maps show where 50 percent of the planet has been *highly or moderately modified*. They show that to truly save nature for its sake and our own, the moderately modified places—where humans have left a mark but some wild land still exists—are just as critical to conserve as the last remaining pristine areas.

CURRENT STATE OF THE LAND ON PLANET EARTH

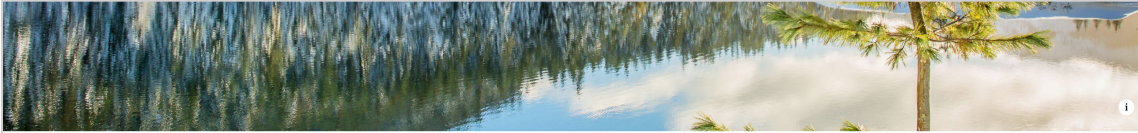




CONTENT AUTHORS
WRITERS
PUBLISHERS

If you are writing content or building a page...

1. **Ensure web pages have titles that describe the topic or purpose**
2. **Ensure web pages have links to allow you to navigate back to a parent page or forward to other related pages**
3. **Provide link text that identifies the purpose of the link**
4. **Focus on content being easy to understand for all audience types**
 - Our content serves a wide audience and using words that only a select few will understand will make sentences unnecessarily long and difficult to read. If scientific concepts or jargon must be used, provide specific definitions and contextualized examples.
5. **Ensure information is displayed in a hierarchical and sensible way**



LAND & WATER STORIES

Real vs. Fake—Which Christmas tree is better for the environment?

Why choosing a real Christmas tree helps nature.

December 03, 2019

SHARE     

View page in: [English](#) | [Español](#)

Every year around the end of November, Christmas trees begin to be on a lot of people's minds. There are many questions about which types of trees are more environmentally friendly. We made a list and checked it twice.

Real or Fake: Which Christmas tree is better for the environment?

Short answer—real! Real trees help fight climate change, and even though your Christmas tree is cut down, you're actually supporting forests. More on that later.

Are fake Christmas trees bad for the environment?

In the U.S., around 10 million artificial trees are purchased each season. Nearly 90 percent of them are shipped across the world from China, resulting in an increase of carbon emissions and resources. And because of the material they are made of, most artificial trees are not recyclable and end up in local landfills. Not to mention the smell of new plastic is just not as nostalgic as a crisp, fresh evergreen.

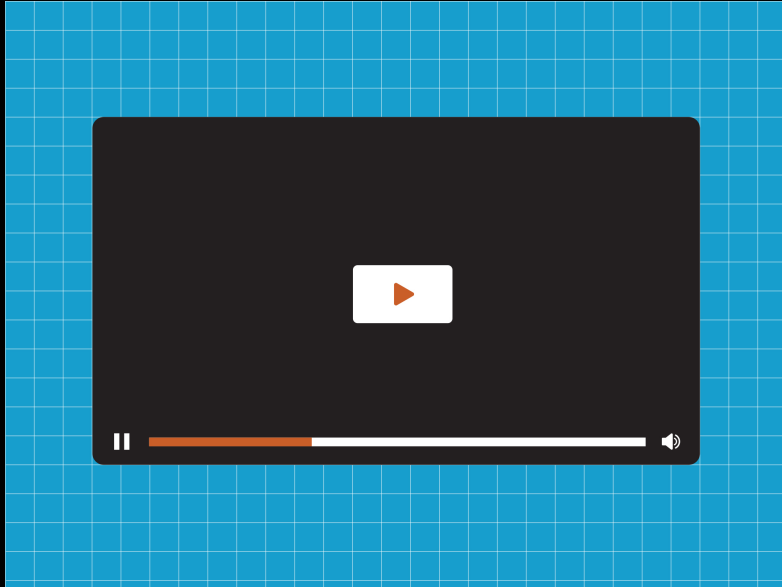


A NATURAL CLIMATE SOLUTION Trees have the greatest potential to cost-effectively reduce carbon emissions, because they absorb carbon dioxide as they grow, removing it from the atmosphere. © Oliver Starks



A PLACE TO CALL HOME Healthy trees and forests provide essential habitat for countless species around the world. © Scott Suriano/TNC Photo Contest 2019

Real vs Fake Christmas Tree



VIDEO EDITORS/PRODUCERS
AUDIO PRODUCERS
ANIMATORS
DESIGNERS
CONTENT AUTHORS

For multimedia content such as video, audio or .gif animations...

1. **Provide written transcripts for audio players (podcasts)**
2. **Provide closed captions for videos**
3. **Provide an audio description track for videos**
 - Audio description is a soundtrack in the video that provides information about actions, characters, scene changes, and on-screen text that are important and are not described or spoken in the main soundtrack. This benefits those who are blind or visually impaired.
 - Digital Team is working on solutions for audio description track
4. **Avoid animation or videos with rapid blinking and/or flashing content.**
 - Do not create content that flashes more than three times in any one second period. This type of content could induce seizures for individuals who are epileptic or have photosensitivity.
5. **Set animated gifs to stop after five seconds**

Audio Transcripts

To make audio content accessible to those who are hearing impaired or deaf, we added a written transcript feature. Transcripts are now a required field.

Destination Nature: Restoring the Reef

Hear episode one of Destination Nature.



COLLAPSE TRANSCRIPT ^

00:02 — [Sounds of water rippling, introduction piano music plays in the background]

00:11 — Speaker: Dive below the sparkling turquoise waters of the Caribbean Sea with Nature Conservancy scientist Joe Pollock to go behind the scenes of a coral restoration on the very first episode of Destination Nature. Then hear from Rita Sellares of partner organization Fundemar on what it takes to pull off Coral Mania, an intensive three-day coral transplantation project.

What's Next?



What's Next?

- **Continued Improvements to [Nature.org](https://www.nature.org):** Global Digital will continue to make design, development, and content improvements to our digital properties
- **Create with Accessibility in Mind:** When you're creating content that will be promoted widely, think about the diversity of your audience and build with accessibility in mind.
- **More guidance is on the way:** In the coming weeks you will receive communications, trainings, and guidelines about how to make your content accessible.
- **As always, reach out to the digital team** via [nature.org/digitalrequests](https://www.nature.org/digitalrequests)

Links to web accessibility resources

OUR WEB ACCESSIBILITY GUIDELINES

<https://digital.nature.org/resources/web/web-accessibility-guidance/>

OUR WEB ACCESSIBILITY CHECKLIST

<https://digital.nature.org/resources/web/web-accessibility-checklist/>

ONLINE EDUCATION COURSE

<https://www.edx.org/>

WEB CONTENT ACCESSIBILITY GUIDELINES (WCAG)

<https://www.w3.org/>

Thanks! Questions?